



SEQUENCE LISTING

<110> SIERRA-HONIGMANN, Rocio M.

<120> MODULATION OF ANGIOGENESIS AND WOUND HEALING

<130> 044574-5029

<140> US 09/700,813

<141> 1999-05-20

<150> PCT/US99/11209

<151> 1999-05-20

<150> US 60/086,354

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<170> PatentIn version 3.1

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Gly	Leu	His	Met	Glu	Val	Thr	Asp	Asp	Gly	Asn	Leu	Lys	Ile	Ser	Trp	245	250	255	
Asp	Ser	Gln	Thr	Met	Ala	Pro	Phe	Pro	Leu	Gln	Tyr	Gln	Val	Lys	Tyr	260	265	270	
Leu	Glu	Asn	Ser	Thr	Ile	Val	Arg	Glu	Ala	Ala	Glu	Ile	Val	Ser	Ala	275	280	285	

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Arg Val Ser Lys Val Thr Phe Ser Asn Leu Lys Ala Thr Arg Pro Arg
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Gly Lys Phe Thr Tyr Asp Ala Val Tyr Cys Cys Asn Glu Gln Ala Cys
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Pro Ser Thr Ile Gln Ser Leu Val Gly Ser Thr Val Gln Leu Arg Tyr
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Ser Val Arg Arg Tyr Val Val Lys His Arg Thr Ala His Asn Gly Thr
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Gly Thr Ser Gly Glu Asn Phe Val Pro Tyr Met Pro Gln Phe Gln
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Asp Ser Gln Thr Lys Ala Pro Phe Pro Leu Gln Tyr Gln Val Lys Tyr
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Gln Val Arg Ser Lys Arg Leu Asp Gly Ser Gly Val Trp Ser Asp Trp
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Gly Lys Phe Thr Tyr Asp Ala Val Tyr Cys Cys Asn Glu Gln Ala Cys
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Pro Ser Thr Ile Gln Ser Leu Val Gly Ser Thr Val Gln Leu Arg Tyr
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His Arg Arg Ser Leu Tyr Cys Pro Asp Asn Pro Ser Ile Arg Pro Thr
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Ser Glu Leu Lys Asn Cys Val Leu Gln Thr Asp Gly Phe Tyr Glu Cys
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Val Ile Glu Trp Lys Asn Leu Asn Asp Asp Asp Gly Met Lys Trp Leu
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Arg Ile Pro Ser Asn Val Asn Lys Tyr Tyr Ile His Asp Asn Phe Ile
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Pro Ile Glu Lys Tyr Gln Phe Ser Leu Tyr Pro Val Phe Met Glu Gly
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Val Gly Lys Pro Lys Ile Ile Asn Gly Phe Thr Lys Asp Asp Ile Ala
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Glu Ala Leu Val Glu Ala Lys Phe Asn Ser Thr Gly Ile Tyr Val Ser
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Gln Asn Cys Ser Ala Leu Thr Gly Asn Thr Glu Gly Lys Thr Leu Ala
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Glu Pro Leu Leu Lys Asn Pro Phe Lys Asn Tyr Asp Ser Lys Val His
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Leu Lys Asp Ser Phe Gln Thr Val Gln Cys Asn Cys Ser Val Arg Glu
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Cys Glu Cys His Val Pro Val Pro Arg Ala Lys Val Asn Tyr Ala Leu
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Leu Met Tyr Leu Glu Ile Thr Ser Ala Gly Val Ser Phe Gln Ser Pro
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Leu Met Ser Leu Gln Pro Met Leu Val Val Lys Pro Asp Pro Pro Leu
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Gly Leu Arg Met Glu Val Thr Asp Asp Gly Asn Leu Lys Ile Ser Trp
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Asp Ser Gln Thr Lys Ala Pro Phe Pro Leu Gln Tyr Gln Val Lys Tyr
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Leu Glu Asn Ser Thr Ile Val Arg Glu Ala Ala Glu Ile Val Ser Asp
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Asn Leu Ala Glu Lys Ile Pro Glu Thr Gln Tyr Asn Thr Val Ser Asp
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His Ile Ser Lys Val Thr Phe Ser Asn Leu Lys Ala Thr Arg Pro Arg
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Gly Lys Phe Thr Tyr Asp Ala Val Tyr Cys Cys Asn Glu Gln Ala Cys
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Ser Cys Glu Thr Asp Gly Tyr Leu Thr Lys Met Thr Cys Arg Trp Ser
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Pro Ser Thr Ile Gln Ser Leu Val Gly Ser Thr Val Gln Leu Arg Tyr
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Val Arg Cys Arg Arg Leu Asp Gly Leu Gly Tyr Trp Ser Asn Trp Ser
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Cys Gln Ser Gln Pro Ser Val Lys Tyr Ala Thr Leu Val Ser Asn Val
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Lys Thr Val Glu Thr Asp Glu Glu Gln Gly Ala Ile His Ser Ser Val
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Ser Gln Cys Ile Ala Arg Lys His Ser Pro Leu Arg Gln Ser Phe
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tatccatgat cattttatcc ccattgagaa gtaccagttc agtctttacc caatatttat	2640

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gcttggaaaca ttattaatat cacaccaaag aatgaaaaag ctattttggg aagatgttcc 2820
gaaccccaag aattgttcct gggcacaagg acttaatttt cagaagccag aaacgtttga 2880
gcatcttttt atcaagcata cagcatcagt gacatgtggt cctcttcttt tggagcctga 2940
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aacaactgtg gtctctctac tttcaacaac agatcttgaa aagggttctg tttgtattag 3060
tgaccagttc aacagtgtta acttctctga ggctgaggggt actgaggtaa cctatgaggc 3120
cgaaagccag agacaaccct ttgttaaata cgccacgctg atcagcaact ctaaaccaag 3180
tgaaaactggg gaagaacaag ggcttataaa tagttcagtc accaagtgtc tctctagcaa 3240
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<210> 10
<211> 1165
<212> PRT
<213> Homo sapiens

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<400> 10

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Met Ile Cys Gln Lys Phe Cys Val Val Leu Leu His Trp Glu Phe Ile
1           5           10           15

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```

Tyr Val Ile Thr Ala Phe Asn Leu Ser Tyr Pro Ile Thr Pro Trp Arg
          20          25          30

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Phe Lys Leu Ser Cys Met Pro Pro Asn Ser Thr Tyr Asp Tyr Phe Leu
 35 40 45

Leu Pro Ala Gly Leu Ser Lys Asn Thr Ser Asn Ser Asn Gly His Tyr
 50 55 60

Glu Thr Ala Val Glu Pro Lys Phe Asn Ser Ser Gly Thr His Phe Ser
 65 70 75 80

Asn Leu Ser Lys Thr Thr Phe His Cys Cys Phe Arg Ser Glu Gln Asp
 85 90 95

Arg Asn Cys Ser Leu Cys Ala Asp Asn Ile Glu Gly Lys Thr Phe Val
 100 105 110

Ser Thr Val Asn Ser Leu Val Phe Gln Gln Ile Asp Ala Asn Trp Asn
 115 120 125

Ile Gln Cys Trp Leu Lys Gly Asp Leu Lys Leu Phe Ile Cys Tyr Val
 130 135 140

Glu Ser Leu Phe Lys Asn Leu Phe Arg Asn Tyr Asn Tyr Lys Val His
 145 150 155 160

Leu Leu Tyr Val Leu Pro Glu Val Leu Glu Asp Ser Pro Leu Val Pro
 165 170 175

Gln Lys Gly Ser Phe Gln Met Val His Cys Asn Cys Ser Val His Glu
 180 185 190

Cys Cys Glu Cys Leu Val Pro Val Pro Thr Ala Lys Leu Asn Asp Thr
 195 200 205

Leu Leu Met Cys Leu Lys Ile Thr Ser Gly Gly Val Ile Phe Gln Ser
 210 215 220

Pro Leu Met Ser Val Gln Pro Ile Asn Met Val Lys Pro Asp Pro Pro
 225 230 235 240

Leu Gly Leu His Met Glu Ile Thr Asp Asp Gly Asn Leu Lys Ile Ser
 245 250 255

Trp Ser Ser Pro Pro Leu Val Pro Phe Pro Leu Gln Tyr Gln Val Lys

260	265	270
Tyr Ser Glu Asn Ser Thr Thr Val Ile Arg Glu Ala Asp Lys Ile Val 275 280 285		
Ser Ala Thr Ser Leu Leu Val Asp Ser Ile Leu Pro Gly Ser Ser Tyr 290 295 300		
Glu Val Gln Val Arg Gly Lys Arg Leu Asp Gly Pro Gly Ile Trp Ser 305 310 315 320		
Asp Trp Ser Thr Pro Arg Val Phe Thr Thr Gln Asp Val Ile Tyr Phe 325 330 335		
Pro Pro Lys Ile Leu Thr Ser Val Gly Ser Asn Val Ser Phe His Cys 340 345 350		
Ile Tyr Lys Lys Glu Asn Lys Ile Val Pro Ser Lys Glu Ile Val Trp 355 360 365		
Trp Met Asn Leu Ala Glu Lys Ile Pro Gln Ser Gln Tyr Asp Val Val 370 375 380		
Ser Asp His Val Ser Lys Val Thr Phe Phe Asn Leu Asn Glu Thr Lys 385 390 395 400		
Pro Arg Gly Lys Phe Thr Tyr Asp Ala Val Tyr Cys Cys Asn Glu His 405 410 415		
Glu Cys His His Arg Tyr Ala Glu Leu Tyr Val Ile Asp Val Asn Ile 420 425 430		
Asn Ile Ser Cys Glu Thr Asp Gly Tyr Leu Thr Lys Met Thr Cys Arg 435 440 445		
Trp Ser Thr Ser Thr Ile Gln Ser Leu Ala Glu Ser Thr Leu Gln Leu 450 455 460		
Arg Tyr His Arg Ser Ser Leu Tyr Cys Ser Asp Ile Pro Ser Ile His 465 470 475 480		
Pro Ile Ser Glu Pro Lys Asp Cys Tyr Leu Gln Ser Asp Gly Phe Tyr 485 490 495		

Glu Cys Ile Phe Gln Pro Ile Phe Leu Leu Ser Gly Tyr Thr Met Trp
500 505 510

Ile Arg Ile Asn His Ser Leu Gly Ser Leu Asp Ser Pro Pro Thr Cys
515 520 525

Val Leu Pro Asp Ser Val Val Lys Pro Leu Pro Pro Ser Ser Val Lys
530 535 540

Ala Glu Ile Thr Ile Asn Ile Gly Leu Leu Lys Ile Ser Trp Glu Lys
545 550 555 560

Pro Val Phe Pro Glu Asn Asn Leu Gln Phe Gln Ile Arg Tyr Gly Leu
565 570 575

Ser Gly Lys Glu Val Gln Trp Lys Met Tyr Glu Val Tyr Asp Ala Lys
580 585 590

Ser Lys Ser Val Ser Leu Pro Val Pro Asp Leu Cys Ala Val Tyr Ala
595 600 605

Val Gln Val Arg Cys Lys Arg Leu Asp Gly Leu Gly Tyr Trp Ser Asn
610 615 620

Trp Ser Asn Pro Ala Tyr Thr Val Val Met Asp Ile Lys Val Pro Met
625 630 635 640

Arg Gly Pro Glu Phe Trp Arg Ile Ile Asn Gly Asp Thr Met Lys Lys
645 650 655

Glu Lys Asn Val Thr Leu Leu Trp Lys Pro Leu Met Lys Asn Asp Ser
660 665 670

Leu Cys Ser Val Gln Arg Tyr Val Ile Asn His His Thr Ser Cys Asn
675 680 685

Gly Thr Trp Ser Glu Asp Val Gly Asn His Thr Lys Phe Thr Phe Leu
690 695 700

Trp Thr Glu Gln Ala His Thr Val Thr Val Leu Ala Ile Asn Ser Ile
705 710 715 720

Gly Ala Ser Val Ala Asn Phe Asn Leu Thr Phe Ser Trp Pro Met Ser
 725 730 735

Lys Val Asn Ile Val Gln Ser Leu Ser Ala Tyr Pro Leu Asn Ser Ser
 740 745 750

Cys Val Ile Val Ser Trp Ile Leu Ser Pro Ser Asp Tyr Lys Leu Met
 755 760 765

Tyr Phe Ile Ile Glu Trp Lys Asn Leu Asn Glu Asp Gly Glu Ile Lys
 770 775 780

Trp Leu Arg Ile Ser Ser Ser Val Lys Lys Tyr Tyr Ile His Asp His
 785 790 795 800

Phe Ile Pro Ile Glu Lys Tyr Gln Phe Ser Leu Tyr Pro Ile Phe Met
 805 810 815

Glu Gly Val Gly Lys Pro Lys Ile Ile Asn Ser Phe Thr Gln Asp Asp
 820 825 830

Ile Glu Lys His Gln Ser Asp Ala Gly Leu Tyr Val Ile Val Pro Val
 835 840 845

Ile Ile Ser Ser Ser Ile Leu Leu Leu Gly Thr Leu Leu Ile Ser His
 850 855 860

Gln Arg Met Lys Lys Leu Phe Trp Glu Asp Val Pro Asn Pro Lys Asn
 865 870 875 880

Cys Ser Trp Ala Gln Gly Leu Asn Phe Gln Lys Pro Glu Thr Phe Glu
 885 890 895

His Leu Phe Ile Lys His Thr Ala Ser Val Thr Cys Gly Pro Leu Leu
 900 905 910

Leu Glu Pro Glu Thr Ile Ser Glu Asp Ile Ser Val Asp Thr Ser Trp
 915 920 925

Lys Asn Lys Asp Glu Met Met Pro Thr Thr Val Val Ser Leu Leu Ser
 930 935 940

Thr Thr Asp Leu Glu Lys Gly Ser Val Cys Ile Ser Asp Gln Phe Asn
 945 950 955 960

Ser Val Asn Phe Ser Glu Ala Glu Gly Thr Glu Val Thr Tyr Glu Ala
 965 970 975

Glu Ser Gln Arg Gln Pro Phe Val Lys Tyr Ala Thr Leu Ile Ser Asn
 980 985 990

Ser Lys Pro Ser Glu Thr Gly Glu Glu Gln Gly Leu Ile Asn Ser Ser
 995 1000 1005

Val Thr Lys Cys Phe Ser Ser Lys Asn Ser Pro Leu Lys Asp Ser
 1010 1015 1020

Phe Ser Asn Ser Ser Trp Glu Ile Glu Ala Gln Ala Phe Phe Ile
 1025 1030 1035

Leu Ser Asp Gln His Pro Asn Ile Ile Ser Pro His Leu Thr Phe
 1040 1045 1050

Ser Glu Gly Leu Asp Glu Leu Leu Lys Leu Glu Gly Asn Phe Pro
 1055 1060 1065

Glu Glu Asn Asn Asp Lys Lys Ser Ile Tyr Tyr Leu Gly Val Thr
 1070 1075 1080

Ser Ile Lys Lys Arg Glu Ser Gly Val Leu Leu Thr Asp Lys Ser
 1085 1090 1095

Arg Val Ser Cys Pro Phe Pro Ala Pro Cys Leu Phe Thr Asp Ile
 1100 1105 1110

Arg Val Leu Gln Asp Ser Cys Ser His Phe Val Glu Asn Asn Ile
 1115 1120 1125

Asn Leu Gly Thr Ser Ser Lys Lys Thr Phe Ala Ser Tyr Met Pro
 1130 1135 1140

Gln Phe Gln Thr Cys Ser Thr Gln Thr His Lys Ile Met Glu Asn
 1145 1150 1155

Lys Met Cys Asp Leu Thr Val

1160

1165

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 <211> 504
 <212> DNA
 <213> Sus scrofa

<400> 11
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 aggatcagtg acatttcaca catgcagtct gtctctctcca aacagagggg caccggtttg 180
 gacttcatcc ctgggctcca tctgtctctg agtttgtcca agatggacca gaccctggcg 240
 atctaccaac agatcctcac cagtctgcct tccagaaatg tgatccaaat atcgaatgac 300
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<210> 12
 <211> 167
 <212> PRT
 <213> Sus scrofa

<400> 12

Met Arg Cys Gly Pro Leu Cys Arg Phe Leu Trp Leu Trp Pro Tyr Leu
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Ser Tyr Val Glu Ala Val Pro Ile Trp Arg Val Gln Asp Asp Thr Lys
 20 25 30

Thr Leu Ile Lys Thr Ile Val Thr Arg Ile Ser Asp Ile Ser His Met
 35 40 45

Gln Ser Val Ser Ser Lys Gln Arg Val Thr Gly Leu Asp Phe Ile Pro
 50 55 60

Gly Leu His Pro Val Leu Ser Leu Ser Lys Met Asp Gln Thr Leu Ala
 65 70 75 80

Ile Tyr Gln Gln Ile Leu Thr Ser Leu Pro Ser Arg Asn Val Ile Gln
 85 90 95

Ile Ser Asn Asp Leu Glu Asn Leu Arg Asp Leu Leu His Leu Leu Ala
100 105 110

Ser Ser Lys Ser Cys Pro Leu Pro Gln Ala Arg Ala Leu Glu Thr Leu
115 120 125

Glu Ser Leu Gly Gly Val Leu Glu Ala Ser Leu Tyr Ser Thr Glu Val
130 135 140

Val Ala Leu Ser Arg Leu Gln Gly Ala Leu Gln Asp Met Leu Arg Gln
145 150 155 160

Leu Asp Leu Ser Pro Gly Cys
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<210> 13
<211> 1413
<212> DNA
<213> Mus musculus

<220>
<221> misc_feature
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<223> "n" can be either "a", "c", "t", or "g"

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caactgtgtc atttgggggt gactgatgta ccttgctttg aaccttacac actgcctttc 180
tgcaaatgtg actgaatgaa gatgtaaata ctgagcatta aaatgtgtct tttcttttag 240
cctgaaacat ttgagcatct ttttaccaag catgcagaat cagtgatatt tggctcctctt 300
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gatgagatgg tcccagcagc tatggtctcc cttcttttga ccacaccaga ccctgaaagc 420
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aactgcatct ccagtaatca ttccccactg aggcagtctt tctctagcag ctctctgggag 660
acagaggccc agacattttt ccttttatca gaccagcaac ccaccatgat ttcaccacaa 720

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ctttcattct cggggttgga tgagcttttg gaactggagg gaagttttcc tgaagaaaat 780
cacagggaga agtctgtctg ttatctagga gtcacctccg tcaacagaag agagagtgg 840
gtgcttttga ctggtgaggc aggaatcctg tgcacattcc cagcccagtg tctgttcagt 900
gacatcagga tcctccagga gagatgctca cactttgtag aaaataattt gagtttaggg 960
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cacaagataa tggagaataa gatgtgtgac ttaactgtgc aatctcatcc aaaaagcctc 1080
aaggttccgt tccagtagag tgtgtcatgt ataatgtgtt cttttattgt tgtggatgtg 1140
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gactcttact gaatatattc ccaagatact tggggaagtc tccctaattc tagctaaaaa 1320
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gatattgaca gctgaacaaa aaggtttcaa gct 1413

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<210> 14
<211> 1174
<212> PRT
<213> Mus musculus

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<400> 14

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Met Met Cys Gln Lys Phe Tyr Val Val Leu Leu His Trp Glu Phe Leu
1          5          10          15

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Tyr Val Ile Ala Ala Leu Asn Leu Ala Tyr Pro Ile Ser Pro Trp Lys
20          25          30

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```

Phe Lys Leu Phe Cys Gly Pro Pro Asn Thr Thr Asp Asp Ser Phe Leu
35          40          45

```

```

Ser Pro Ala Gly Ala Pro Asn Asn Ala Ser Ala Leu Lys Gly Ala Ser
50          55          60

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Glu Ala Ile Val Glu Ala Lys Phe Asn Ser Ser Gly Ile Tyr Val Pro
65          70          75          80

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```

Glu Leu Ser Lys Thr Val Phe His Cys Cys Phe Gly Asn Glu Gln Gly
85          90          95

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Gln Asn Cys Ser Ala Leu Thr Asp Asn Thr Glu Gly Lys Thr Leu Ala

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100	105	110
Ser Val Val Lys Ala Ser Val Phe Arg Gln Leu Gly Val Asn Trp Asp 115 120 125		
Ile Glu Cys Trp Met Lys Gly Asp Leu Thr Leu Phe Ile Cys His Met 130 135 140		
Glu Pro Leu Pro Lys Asn Pro Phe Lys Asn Tyr Asp Ser Lys Val His 145 150 155 160		
Leu Leu Tyr Asp Leu Pro Glu Val Ile Asp Asp Ser Pro Leu Pro Pro 165 170 175		
Leu Lys Asp Ser Phe Gln Thr Val Gln Cys Asn Cys Ser Leu Arg Gly 180 185 190		
Cys Glu Cys His Val Pro Val Pro Arg Ala Lys Leu Asn Tyr Ala Leu 195 200 205		
Leu Met Tyr Leu Glu Ile Thr Ser Ala Gly Val Ser Phe Gln Ser Pro 210 215 220		
Leu Met Ser Leu Gln Pro Met Leu Val Val Lys Pro Asp Pro Pro Leu 225 230 235 240		
Gly Leu His Met Glu Val Thr Asp Asp Gly Asn Leu Lys Ile Ser Trp 245 250 255		
Asp Ser Gln Thr Met Ala Pro Phe Pro Leu Gln Tyr Gln Val Lys Tyr 260 265 270		
Leu Glu Asn Ser Thr Ile Val Arg Glu Ala Ala Glu Ile Val Ser Ala 275 280 285		
Thr Ser Leu Leu Val Asp Ser Val Leu Pro Gly Ser Ser Tyr Glu Val 290 295 300		
Gln Val Arg Ser Lys Arg Leu Asp Gly Ser Gly Val Trp Ser Asp Trp 305 310 315 320		
Ser Ser Pro Gln Val Phe Thr Thr Gln Asp Val Val Tyr Phe Pro Pro 325 330 335		

Lys Ile Leu Thr Ser Val Gly Ser Asn Ala Ser Phe His Cys Ile Tyr
340 345 350

Lys Asn Glu Asn Gln Ile Ile Ser Ser Lys Gln Ile Val Trp Trp Arg
355 360 365

Asn Leu Ala Glu Lys Ile Pro Glu Ile Gln Tyr Ser Ile Val Ser Asp
370 375 380

Arg Val Ser Lys Val Thr Phe Ser Asn Leu Lys Ala Thr Arg Pro Arg
385 390 395 400

Gly Lys Phe Thr Tyr Asp Ala Val Tyr Cys Cys Asn Glu Gln Ala Cys
405 410 415

His His Arg Tyr Ala Glu Leu Tyr Val Ile Asp Val Asn Ile Asn Ile
420 425 430

Ser Cys Glu Thr Asp Gly Tyr Leu Thr Lys Met Thr Cys Arg Trp Ser
435 440 445

Pro Ser Thr Ile Gln Ser Leu Val Gly Ser Thr Val Gln Leu Arg Tyr
450 455 460

His Arg Arg Ser Leu Tyr Cys Pro Asp Ser Pro Ser Ile His Pro Thr
465 470 475 480

Ser Glu Pro Lys Asn Cys Val Leu Gln Arg Asp Gly Phe Tyr Glu Cys
485 490 495

Val Phe Gln Pro Ile Phe Leu Leu Ser Gly Tyr Thr Met Trp Ile Arg
500 505 510

Ile Asn His Ser Leu Gly Ser Leu Asp Ser Pro Pro Thr Cys Val Leu
515 520 525

Pro Asp Ser Val Val Lys Pro Leu Pro Pro Ser Asn Val Lys Ala Glu
530 535 540

Ile Thr Val Asn Thr Gly Leu Leu Lys Val Ser Trp Glu Lys Pro Val
545 550 555 560

Phe Pro Glu Asn Asn Leu Gln Phe Gln Ile Arg Tyr Gly Leu Ser Gly
565 570 575

Lys Glu Ile Gln Trp Lys Thr His Glu Val Phe Asp Ala Lys Ser Lys
580 585 590

Ser Ala Ser Leu Leu Val Ser Asp Leu Cys Ala Val Tyr Val Val Gln
595 600 605

Val Arg Cys Arg Arg Leu Asp Gly Leu Gly Tyr Trp Ser Asn Trp Ser
610 615 620

Ser Pro Ala Tyr Thr Leu Val Met Asp Val Lys Val Pro Met Arg Gly
625 630 635 640

Pro Glu Phe Trp Arg Lys Met Asp Gly Asp Val Thr Lys Lys Glu Arg
645 650 655

Asn Val Thr Leu Leu Trp Lys Pro Leu Thr Lys Asn Asp Ser Leu Cys
660 665 670

Ser Val Arg Arg Tyr Val Val Lys His Arg Thr Ala His Asn Gly Thr
675 680 685

Trp Ser Glu Asp Val Gly Asn Arg Thr Asn Leu Thr Phe Leu Trp Thr
690 695 700

Glu Pro Ala His Thr Val Thr Val Leu Ala Val Asn Ser Leu Gly Ala
705 710 715 720

Ser Leu Val Asn Phe Asn Leu Thr Phe Ser Trp Pro Met Ser Lys Val
725 730 735

Ser Ala Val Glu Ser Leu Ser Ala Tyr Pro Leu Ser Ser Ser Cys Val
740 745 750

Ile Leu Ser Trp Thr Leu Ser Pro Asp Asp Tyr Ser Leu Leu Tyr Leu
755 760 765

Val Ile Glu Trp Lys Ile Leu Asn Glu Asp Asp Gly Met Lys Trp Leu
770 775 780

Arg Ile Pro Ser Asn Val Lys Lys Phe Tyr Ile His Asp Asn Phe Ile
785 790 795 800

Pro Ile Glu Lys Tyr Gln Phe Ser Leu Tyr Pro Val Phe Met Glu Gly
805 810 815

Val Gly Lys Pro Lys Ile Ile Asn Gly Phe Thr Lys Asp Ala Ile Asp
820 825 830

Lys Gln Gln Asn Asp Ala Gly Leu Tyr Val Ile Val Pro Ile Ile Ile
835 840 845

Ser Ser Cys Val Leu Leu Leu Gly Thr Leu Leu Ile Ser His Gln Arg
850 855 860

Met Lys Lys Leu Phe Trp Asp Asp Val Pro Asn Pro Lys Asn Cys Ser
865 870 875 880

Trp Ala Gln Gly Leu Asn Phe Gln Lys Pro Glu Thr Phe Glu His Leu
885 890 895

Phe Thr Lys His Ala Glu Ser Val Ile Phe Gly Pro Leu Leu Leu Glu
900 905 910

Pro Glu Pro Ile Ser Glu Glu Ile Ser Val Asp Thr Ala Trp Lys Asn
915 920 925

Lys Asp Glu Met Val Pro Ala Ala Met Val Ser Leu Leu Leu Thr Thr
930 935 940

Pro Asp Pro Glu Ser Ser Ser Ile Cys Ile Ser Asp Gln Cys Asn Ser
945 950 955 960

Ala Asn Phe Ser Gly Ser Gln Ser Thr Gln Val Thr Cys Glu Asp Glu
965 970 975

Cys Gln Arg Gln Pro Ser Val Lys Tyr Ala Thr Leu Val Ser Asn Asp
980 985 990

Lys Leu Val Glu Thr Asp Glu Glu Gln Gly Phe Ile His Ser Pro Val
995 1000 1005

Ser Asn Cys Ile Ser Ser Asn His Ser Pro Leu Arg Gln Ser Phe

1010	1015	1020
Ser Ser Ser Ser Trp Glu Thr	Glu Ala Gln Thr Phe	Phe Leu Leu
1025	1030	1035
Ser Asp Gln Gln Pro Thr Met	Ile Ser Pro Gln Leu	Ser Phe Ser
1040	1045	1050
Gly Leu Asp Glu Leu Leu Glu	Leu Glu Gly Ser Phe	Pro Glu Glu
1055	1060	1065
Asn His Arg Glu Lys Ser Val	Cys Tyr Leu Gly Val	Thr Ser Val
1070	1075	1080
Asn Arg Arg Glu Ser Gly Val	Leu Leu Thr Gly Glu	Ala Gly Ile
1085	1090	1095
Leu Cys Thr Phe Pro Ala Gln	Cys Leu Phe Ser Asp	Ile Arg Ile
1100	1105	1110
Leu Gln Glu Arg Cys Ser His	Phe Val Glu Asn Asn	Leu Ser Leu
1115	1120	1125
Gly Thr Ser Gly Glu Asn Phe	Val Pro Tyr Met Pro	Gln Phe Gln
1130	1135	1140
Thr Cys Ser Thr His Ser His	Lys Ile Met Glu Asn	Lys Met Cys
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Asp Leu Thr Val Gln Ser His	Pro Lys Ser Leu Lys	Val Pro Phe
1160	1165	1170

Gln

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 <211> 4067
 <212> DNA
 <213> Bos taurus

<400> 15
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aggctgtgca	gccttgacac	ggccccagtg	gcctggacgc	ccccctggca	taaagacagc	1380
tcctctcctc	ctctacttcc	cttgccctct	gccttctcac	tctcctccct	cccagaccgg	1440
aatcctagt	cccaggccca	gaaggagtca	cagaggctct	gggggtcccct	tggcagggtg	1500
ccagaacccc	agcagcagtc	cctctggggc	tccatctcat	ttctagaatg	ttttagtcgt	1560
taggcattct	tcctgcctgg	taactgagct	tagaccctgc	gagctcatta	ctcattactg	1620
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